

LISTING OF THE CLAIMS:

While no claims have been amended, added, or canceled, this listing is provided for the convenience of the Examiner.

1. (Previously presented) A method for wireless association between a controller and a wireless node, the method comprising:

receiving association request data transmitted from the wireless node, the association request data including unique identification (ID) data for the wireless node;
in response to receiving the association request data at the controller, assigning association ID data including a master ID exclusively identifying the controller relative to any other controller within communication range of the wireless node, a network ID corresponding to a network served by the controller and of which the wireless node is operating, and a slave ID exclusively assigned to the wireless node relative to any other wireless nodes in the network, wherein the association ID data is selected from a numerical range exclusively allocated to the controller;

sending the association ID data assigned to the wireless node by the controller using the unique ID with the association ID data to identify the wireless node as the intended recipient of the association ID data, the controller storing the association ID data for use in exchanging wireless signals with the wireless node; and

determining that association IDs of incoming wireless signals are within the numerical range, and in response thereto, using the stored association ID data to identify the incoming wireless signals as coming from the wireless node.

2. (Original) The method of claim 1, further comprising:

using the stored association ID data at the wireless node to identify incoming wireless signals from the controller as signals intended for the wireless node.

3. (Canceled).

4. (Previously presented) The method of claim 1, wherein assigning association ID data including a network ID includes assigning network ID data corresponding to the network of a plurality of wireless nodes served by the controller identified by the master ID.

5. (Original) The method of claim 4, further comprising selecting the network ID data by parsing network ID data in use within range of the controller and selecting network ID data that is not in use within range.

6. (Canceled)

7. (Canceled)

8. (Previously presented) The method of claim 1, after assigning association ID data, further comprising replacing the controller with a new controller, storing the association ID data at the new controller and using the master ID data to identify the new controller.

9. (Original) The method of claim 1, prior to transmitting association request data, further comprising inputting an association request at the wireless node and wherein transmitting association request data includes transmitting the association request data in response to the association request input.

10. (Original) The method of claim 9, further comprising entering an association mode at the wireless node for a selected time period and exiting the association mode after the selected time period has expired, wherein receiving and storing the association ID data at the wireless node includes receiving and storing the association ID data if the wireless node is in the association mode.

11. (Original) The method of claim 9, further comprising inputting an association request input at the controller and wherein sending association ID data includes sending the

association ID data in response to both the association request input at the controller and the received association request data.

12. (Original) The method of claim 11, further comprising entering an association mode at the controller for a selected time period and exiting the association mode after the selected time period has expired, wherein receiving the association request data at the controller and, in response, sending association ID data includes sending association ID data if the controller is in the association mode.

13. (Original) The method of claim 1, after receiving and storing the association ID data at the wireless node, replacing the wireless node with a new wireless node by storing the association ID data at the new wireless node.

14. (Original) The method of claim 1, further comprising sending messages to the wireless node using the association ID data to identify the wireless node as the intended recipient of the messages and using the messages at the wireless node to control equipment coupled thereto.

15. (Original) The method of claim 1, prior to sending association ID data, further comprising:

- sending a conflict checking message including a network ID to be used with the association ID;

- in response to receiving a network ID conflict response of another controller to the conflict checking message, selecting a new network ID to be included with the association ID and re-sending a conflict checking message; and

- in response to not receiving a network ID conflict response, sending the association ID data.

16. (Original) The method of claim 1, further comprising:

using the controller to monitor wireless conflict checking messages from other controllers within range of the controller; and

in response to receiving a conflict checking message including a network ID that is in use by the controller, sending a conflict response.

17. (Previously presented) A method for wirelessly communicating between a controller and a wireless node, the method comprising:

receiving, at the controller, association request data transmitted from the wireless node, the association request data including a unique device ID for the wireless node;

assigning association ID data including a master ID exclusively identifying the controller relative to any other controller within communication range of the wireless node, a network ID corresponding to a network served by the controller and of which the wireless node is operating, and a slave ID exclusively assigned to the wireless node relative to any other wireless nodes in the network wherein the association ID data is selected from a numerical range exclusively allocated to the controller;

sending an association ID assigned to the wireless node by the controller using the unique device ID with the association ID to identify the wireless node as the intended recipient of the association ID, the controller storing the association ID for use in sending wireless messages to the wireless node;

receiving and storing the association ID data at the wireless node as a function of the unique ID;

in response to the association ID data being within the numerical range, using at least the slave ID of the stored association ID data at the wireless node to identify incoming wireless messages from the controller as messages intended for the wireless node; and

determining that association IDs of incoming wireless messages are within the numerical range, and in response thereto, use at least the master ID and the network ID of the association ID data at the controller identified by the master ID to identify the incoming wireless messages as being sent from the wireless node on a network identified by the network ID.

18. (Canceled).

19. (Previously presented) The method of claim 17, further comprising in response to the association ID data being outside of the numerical range, ignoring the association ID data at the controller.

20. (Previously presented) The method of claim 17, wherein using the association ID data at the controller to identify incoming wireless messages sent from the wireless node includes determining, at the controller, that the network ID data corresponds to a network served by the controller.

21. (Previously presented) The method of claim 17, wherein the master ID data is exclusive to the controller relative to controllers within communication range of the wireless node, and wherein using the association ID data at the controller to identify incoming wireless messages sent from the wireless node includes determining, at the controller, that the master ID data corresponds to the controller's master ID data.

22. (Original) The method of claim 17, wherein using the stored association ID data at the wireless node to identify incoming wireless messages includes identifying the incoming wireless messages from a plurality of incoming wireless messages traversing shared media that is susceptible to the transmission of multiple wireless messages.

23. (Previously presented) A method for controlling a plurality of wireless thermostats in communication range with at least one gateway, each wireless thermostat coupled to control HVAC type equipment, the method comprising:

receiving, at the gateway, association request data sent from one of the wireless thermostats configured to control the HVAC type equipment, the association request data including unique identification (ID) data for the wireless thermostat;

generating a gateway-owned association ID to include a master ID exclusively identifying the gateway relative to any other gateway within communication range of the wireless thermostat, a network ID corresponding to a network served by the gateway and of which the wireless thermostat is operating, and a slave ID exclusively assigned to the wireless thermostat relative to any other wireless thermostats in the network, and sending the gateway-owned association ID data assigned to the wireless thermostat by the gateway using the unique ID to identify the wireless thermostat as the intended recipient of the association ID, the gateway storing the association ID data for use in sending wireless messages to the wireless thermostat and to identify incoming wireless messages sent from the wireless thermostat, wherein the association ID is selected from a numerical range exclusively allocated to the gateway;

sending the gateway-owned association ID data ~~at~~ to the wireless thermostat as a function of the unique ID to identify incoming wireless messages from the gateway as messages intended for the wireless thermostat; and

communicating control messages from the gateway to the wireless thermostat using the association ID data to identify the wireless thermostat as the intended recipient of the control messages the control messages causing ~~at~~ the wireless thermostat to accept the control messages as function of the association ID data and, in response to the control messages, controlling HVAC equipment coupled to the wireless thermostat.

24. (Previously presented) The method of claim 23, further comprising:

using the association ID to label compliance data sent from the wireless thermostat to identify the source of the compliance data, the compliance data being indicative of user compliance with the utility control messages.

25. (Original) The method of claim 24, further comprising sending the compliance data from the gateway to a local utility provider.

26. (Original) The method of claim 23, wherein communicating control messages from the gateway includes communicating control messages in response to control messages received at the gateway from a local utility company.

27. (Original) The method of claim 23, wherein communicating control messages from the gateway includes broadcasting information from the gateway to a plurality of wireless thermostats using a network ID included with the association ID, each of the plurality of wireless thermostats being adapted to receive the broadcast information as a function of the network ID portion of the association ID.

28. (Original) The method of claim 27, wherein each wireless thermostat is adapted to respond to the broadcast information as a function of user inputs received at the wireless thermostat and to report a condition of the response to the gateway using the association ID to identify the wireless thermostat from which the reported condition was sent.

29. (Previously presented) A system for wireless association between a controller and a wireless node, the system comprising:

means for transmitting association request data from the wireless node, the association request data including unique identification (ID) data for the wireless node;

means for receiving the association request data at the controller and, in response, assigning association ID data including a master ID exclusively identifying the controller relative to any other controller within communication range of the wireless node, a network ID corresponding to a network served by the controller and of which the wireless node is operating, and a slave ID exclusively assigned to the wireless node relative to any other wireless nodes in the network, wherein the association ID data is selected from a numerical range exclusively allocated to the controller;

means for sending the association ID data assigned to the wireless node by the controller using the unique ID with the association ID data to identify the wireless node as

the intended recipient of the association ID data, the controller storing the association ID data for use in sending wireless signals to the wireless node;

means for receiving and storing the association ID data at the wireless node as a function of the unique ID, thereby associating the wireless node with the controller identified by the master ID and operating in the network identified by the network ID; and

means for determining that association IDs of wireless signals received at the controller are within the numerical range, and in response thereto, using the stored association ID data to identify the incoming wireless signals as coming from the wireless node.

30. (Previously presented) A controller apparatus comprising:

a transceiver capable of being coupled to one or more wireless nodes that transmit association request data including unique identification (ID) data for the wireless node;

a processor that causes the apparatus to:

receive the association request data;

in response to receiving the association request data, assigning association ID data including a master ID exclusively identifying the controller relative to any other controller within communication range of the wireless node, a network ID corresponding to a network served by the controller and of which the wireless node is operating, and a slave ID exclusively assigned to the wireless node relative to any other wireless nodes in the network, wherein the association ID data is selected from a numerical range exclusively allocated to the controller;

send the association ID data assigned to the wireless node by the controller using the unique ID with the association ID data to identify the wireless node as the intended recipient of the association ID data, thereby causing the wireless node to receive and store the association ID data as a function of the unique ID, thereby associating the wireless node with the controller;

store the association ID data for use in sending wireless signals to the wireless node; and

determine that association IDs of incoming wireless signals are within the numerical range, and in response thereto, using the stored association ID data to identify the incoming wireless signals as coming from the wireless node.

31. (Previously presented) The apparatus of claim 30, wherein the wireless node is configured and arranged to use the stored association ID data at the wireless node to identify incoming wireless signals from the controller as signals intended for the wireless node.

32. (Previously presented) The apparatus of claim 30, wherein the processor further causes the apparatus to use the association ID to identify incoming wireless signals sent from the wireless node as coming from the wireless node.

33. (Previously presented) The apparatus of claim 30, wherein the processor further causes the apparatus to:

prior to sending association ID data, send a conflict checking message including a network ID to be used with the association ID;

in response to receiving a network ID conflict response of another controller to the conflict checking message, select a new network ID to be included with the association ID and re-send a conflict checking message; and

in response to not receiving a network ID conflict response, send the association ID data.

34. (Previously presented) The apparatus of Claim 30 wherein the processor further causes the apparatus to, in response to the association ID data being outside of the numerical range, ignore the association ID data.

35. (Previously presented) The method of Claim 1 further comprising, in response to the association ID data being outside of the numerical range, ignoring the association ID data at the controller.